



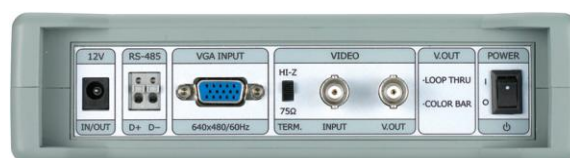
Highly Efficient Portable Test Monitor

User's Guide **SC-LFC56LC**

Ultra-low power LED BACKLIGHT Monitor

COAX (UP THE COAX) Remote Control

SC-LFC56LC



Precautions

Please read this user's manual thoroughly prior to use the unit for its easy and convenient use.

- Please always handle the unit with care. Otherwise, the LCD display panel can be damaged when it gets any physical shock and/or you drop it to the ground. Please note that we may charge for the replacement of the display panel even the unit is under warranty, when it is broken due to any physical shock or user's misuse.
- Avoid touching the screen. To clean the screen, wipe the screen with a clean, soft and dry towel and be careful not to damage the LCD display panel.
- Try not to insert any foreign objects inside the unit. It may cause malfunction or damage to the unit.
- To reduce the risk of fire or electric shock, do not expose the LCD to rain or moisture.
- Please do not connect the power wire to the video input/output port. It may cause malfunction when AC or DC power is inserted.
- Please use only the authorized battery charger included in the package. Otherwise, it may cause fire or explosion when using an unauthorized battery charger. (When red LED flicks in recharging, please request A/S)
- The built-in Li-Polymer battery (11.1V / 2200mA) is under six months warranty from the purchase date. Please do not use it with another type of battery on this portable monitor as it may cause fire or explosion.
- Please do not disassemble the built-in battery and avoid making any short circuit of it.
- The battery can be damaged when a short circuit is created at the power connecting port or when the polarity of the power cable is connected in reverse.
- When supply power to the camera through the test monitor, please use the power harness (DC jack) enclosed in the package.
- When supply power to the camera, please connect first the power cable to the camera and then turn on the unit. Otherwise, it may create a short circuit and the unit can be turned off automatically in order to protect the battery. When a short circuit is produced, please turn off the test monitor and then remove and re-insert the power harness (DC jack). Then turn the unit on again.
- Please keep the unit inside the carrying bag in order to protect the LCD screen from scratches.
- Keep the unit away from any electronic conductive materials or liquid subject.
- If the LCD display emits smoke, abnormal noise, or a strange odor, immediately turn it off and contact your distributor.

When the unit is not working properly, please contact your distributor. Please do not disassemble the unit by yourself. (When unauthorized person modified or made damage on the product trying to repair it, we may charge you with the fee.)

1. Introduction

1-1. Overview

The **SC-LFC56LC** is a highly efficient multi-functional portable test monitor with LED backlight display panel of 5.6" wide display. With the SC-LFC56LC, you can easily adjust the camera focus and control the P/T/Z for Speed Dome Cameras. Furthermore, SC-LFC56LC supports the camera OSD menu control feature (UP THE COAX) which you can set Camera OSD menu via COAX communication or RS-485 from the remote side. Also it provides Full Color Bar to check the video signal. With the LED backlight, the TFT-LCD display shows max. 640 x (RGB) x 480 resolution and the battery lasts up to 8 hours. The video level meter displays the brightness (A. level) and the color (F. level) of the video signal numerically; this feature is useful when installers want to check the camera and cabling status and adjust the video level of an UTP receiver. Using this device, one sole installer can check every part of CCTV system alone. Also you can reduce the time and the labor cost when installing and checking the CCTV system.

1-2. Features

- 5.6 inch wide TFT-LCD digital panel
- Possible to set camera OSD menu and test P/T/Z via Coaxial communication (Pelco-C protocol) or RS-485 from a remote side (max. 800M by coaxial cable communication, 1.2km by RS-485 communication).
- Numerical video level meter for checking the video signal (A.Level-brightness / F.Level-color)
- LED Back Light (Low Power Consumption)
- Supply power to the camera with 12VDC/500mA (power harness included)
- Various video input: CVBS, X VGA (640x480, 1024x768/60Hz) signal
- High capacity Li-Polymer battery lasting up to 8 hours (16 hours with optional extra battery)
- Guideline indicator to adjust the camera angle (applicable to elevator, hallway and etc.)
- P/T/Z control (RS-485) for Speed Dome Camera (possible to add new protocols upon customer request)
- Video signal distribution (Loop Through) select switch (HI-Z / 75Ω)
- Monitor test or video source signal output (PATTERN OUT)
- Possible to zoom in by Up Scale (HOT Key)
- Audio Input (optional)
- Portable and convenient for using with leather bag and neck string

1-3. Applications

- When you display the video signals, or adjust the camera angle
- When you check the cable status and/or the DVR
- When you check Speed Dome or PTZ Camera status and/or control the PTZ
- When you check the video level (Sync/ Burst level) of each field and/or you adjust the A. Level and F. Level of the UTP transmission solutions at its optimum level
- When you control Camera OSD menu at remote side.

1-4. How to use it

- To adjust the camera angle



Adjusting the camera angle
at the elevator



Adjusting the camera angle
at the parking lot

- To adjust the video level of Tx/Rx. of UTP transmission



A/F Level Adjustment

[UTP Tx. / Rx. Adjustment]

Useful features to adjust the video level
of UTP receiver or to check the video
signals of each surveillance areas.

- To display video in XVGA mode



Support XVGA video at 1024*768 resolutions
through the VGA input port

- Optional Accessory (Vehicle power charger)



Possible to charge portable monitor any time in a car
Compatible with SC-LFC56N/L/LC/LD

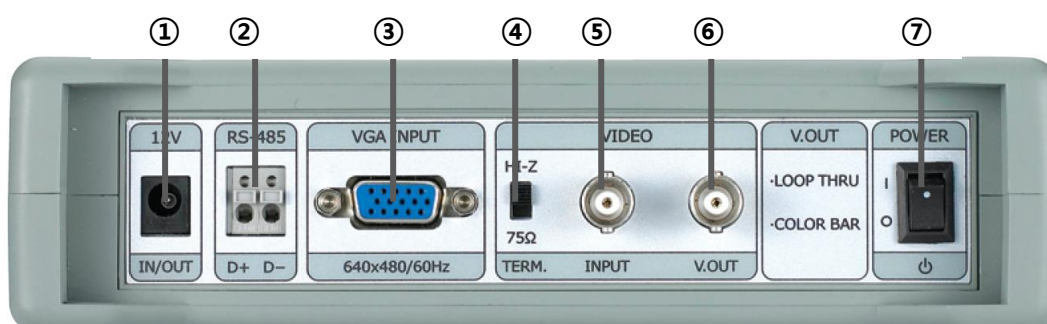
2. Components

SC-LFC56LC	Carrying Bag	Accessories	
		Power Adapter	DC Jack for camera power supply
			

3. Product Parts and Peripheral Device Connection

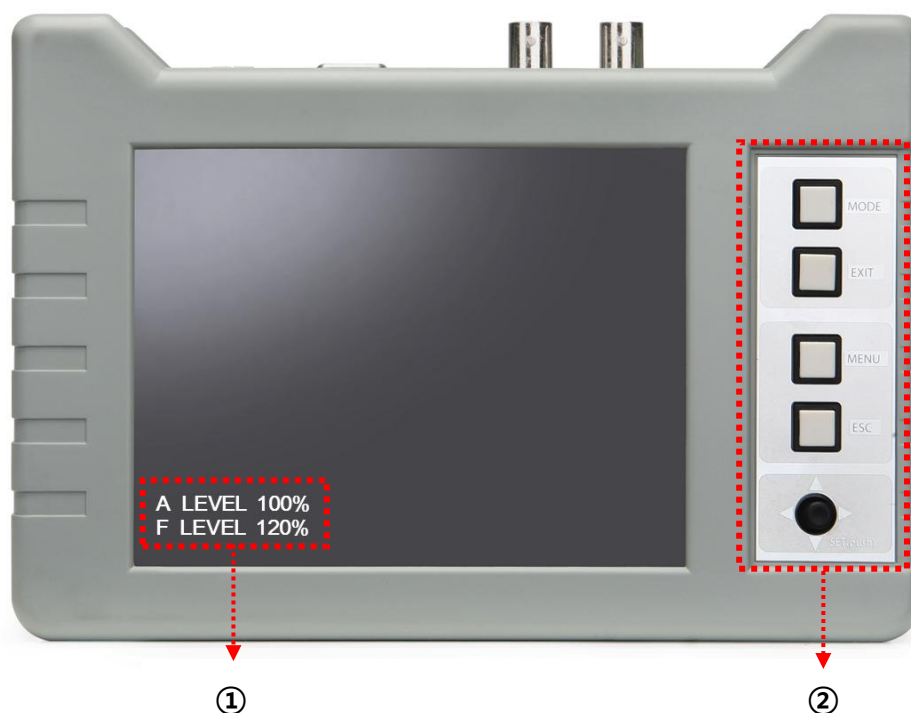
3-1. Part Names and Functions

3-1-1. Interface



NO	MARKING		FUNCTION
①	12V		To charge the built-in LI-Polymer battery with the charger. Or, to supply power to the camera (DC12V/500mA) with power supply harness.
②	RS-485		RS-485 communication cable for PTZ RECEIVER and SPEED DOME CAMERA control
③	VGA INPUT		XVGA Input (640x480, 800x600, 1024x768/60Hz)
④	VIDEO	TERM	With loop through : HI-Z position
⑤		INPUT	CAMERA or CVBS video signal input COAX communication : PTZ RECEIVER or SPEED DOME CAMERA control
⑥		V.OUT	Display Full color bar pattern generator when selecting the menu pattern out ON. Display Loop Through video signal when selecting the menu pattern out OFF (in Hi-Z mode)
⑦	POWER		Power ON/OFF switch

3-1-2. Level Meter Indicator & Button Function



① Level Meter Indicator

- A. Level: It indicates the brightness level of the video (Amplitude/Sync level) in percentage.
- F. Level: It indicates the color level of the video (Frequency/Burst level) in percentage.

※ Please refer to the menu 3-1-2-1 for more details.

② Button Function

Button	MENU Mode	RS-485 & COAX Mode	Angle Adjust mode	Video Monitoring mode
MODE		PTZ&OSD Mode switch		
EXIT		Operate in PTZ Mode	Angle Mode Out	HOT KEY (Zoom in)
MENU		Operate in OSD MODE		
ESC		Operate in OSD MODE		
Multi Way Key	Up, Down, Right, Left Push (SET)	Pan/Tilt/Zoom/Focus Up,Down,Right,Left,Push (SET)	Up,Down,Right,Left Angle Bar select(SET)	
Enter (Push)	Enter the main menu or select menu			

※ When you use some of the cameras (supporting PELCO-D) ENTER KEY of the MULTI WAY KEY may not work. In this case, MENU KEY functions as an ENTER KEY

*** Zoom In:**

- When monitoring the video, press and hold the DOWN button for 2 seconds to zoom in the video. Please note that the full frame of the video may not be displayed.

<Normal mode (350TVL)>



<Zoom in mode (500TVL)>

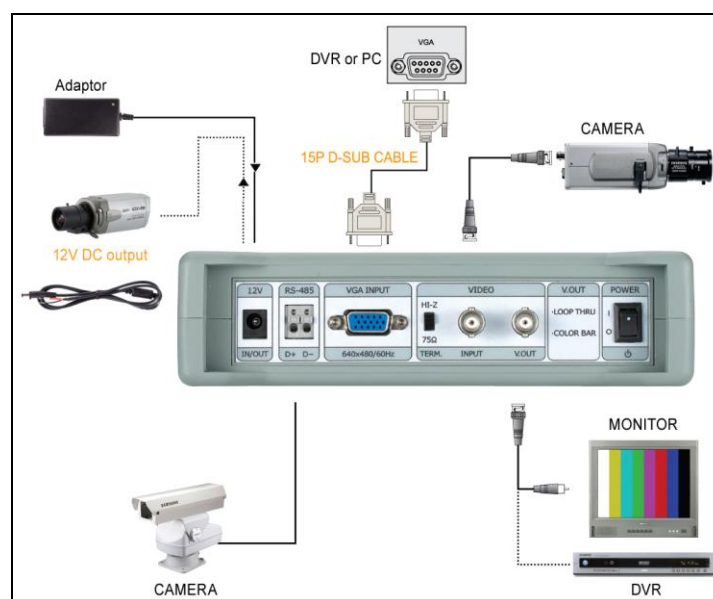


3-1-2-1. Level Meter Indicator

The Video Level Meter indicates the Sync. and Burst Level of the CVBS video signals in A. Level and F. Level respectively. It is useful when you adjust the A. level and F. level of the video from the video receiver over the UTP cable accurately and when you search the deteriorated video area.

- A. Level: It indicates the brightness of the video (Amplitude/Sync level) in percentage. The more the level percentage is close to 100%, the better the quality of the video is. When the A. Level % is under 100%, it indicates that the video signals are decreased and the brightness is reduced.
- F. Level: It indicates the color level of the video (Frequency/Burst level) in percentage. The more the level percentage is close to 100%, the better the quality of the video color and the resolution is.

3-2. Connection Diagram



※ Please use only the power cable (DC jack) enclosed when supplying power to the camera.

3-2-1. Video input

- The video is displayed when you connect the camera or video signal into VIDEO input.

3-2-2. Pattern signal out & Loop Through video out

- Select Pattern Out ON when you check the wiring status, monitor and DVR.
- When the Pattern Out is off, you can see the video by looped through output.

3-2-3. VGA input

- Check the video output in XVGA (1024×768/60Hz) from DVR or from PC.
- It supports XVGA in maximum and a higher resolution may not displayed in normal.

3-2-4. PTZ&OSD control through RS-485

- Through RS-485 com. port, you can control PTZ Receiver and/or SPEED DOME CAMERA. It supports various protocols and it is possible to add new protocol upon request.

3-2-5. CVBS video signal level meter

- It displays CVBS video signal level of SYNC (Brightness/A.Level) and BURST (Color/F. Level) in percentage (error: $\pm 2\%$).

3-2-6. PTZ&OSD control through COAX cable

- Through Coax com. port, you can control SPEED DOME CAMERA.

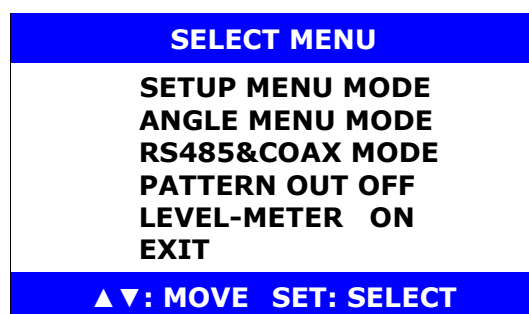
4. Menu Setting

4-1. MENU mode

4-1-1. SELECT MENU

- It displays the main menu as below when you press the SET MENU button.
- Press the direction buttons to mode Up ▲, Down ▼, Right ► or Left ◀.

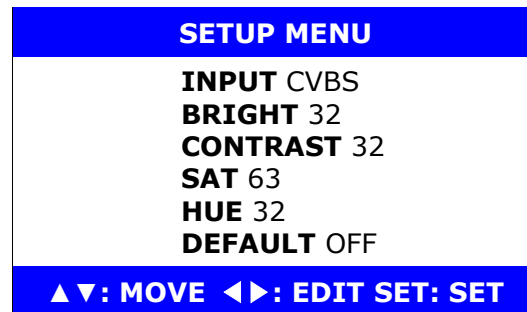
The menu mode is automatically off if you don't press any buttons for few minutes.



- SETUP MENU MODE: You can select the video input (CVBS /VGA) and adjust the brightness, contrast and sharpness.
- ANGLE MENU MODE: It displays the guideline zone to adjust the camera angle.
- RS485&COAX MODE: You can control the PTZ receiver and/or speed dome camera through RS-485 port.
- PATTERN OUT OFF: You can put out the Pattern Color bar to check the wiring status, monitor and DVR.

- LEVEL-METER ON: It shows the CVBS video signal level.
- EXIT: EXIT from the Main Menu.

4-1-1-1. SETUP MENU



- INPUT : To select the displaying video in CVBS or VGA mode.
- BRIGHT : To adjust the brightness (0 ~ 63 steps, default: 32).
- CONTRAST : To adjust the contrast (0 ~ 63 steps, default: 32).
- SAT : To adjust the saturation (0 ~ 63 steps, default: 63).
- HUE : To adjust the color (0 ~ 63 steps, default: 32).
- DEFAULT : It changes the adjusted values in default mode.

※ **Notes:** When you press SET MENU button in VGA INPUT mode, it enters SETUP MENU instead of SELECT MENU (main menu). The Angle Menu, PTZ Menu, Pattern Out and Level Meter menu are available only in CVBS video input mode.

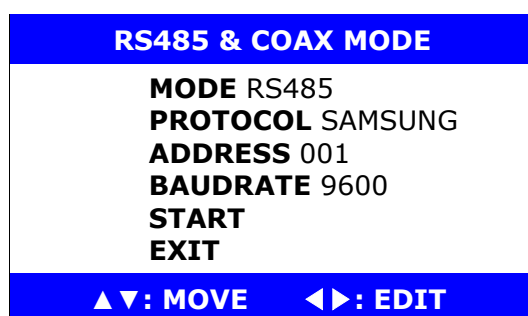
4-1-1-2. ANGLE MODE



Indication lines:
Please move the indication
lines of the green box to
focus the angle of the
camera to a specific zone.

- When selecting ANGLE MODE, it displays a green box and the indication lines of the camera angle zone.
- Press the SET MENU button to select the size of the green box. Press again the SET MENU button and select the side line of the box you want to adjust, and then press ◀/▶/▲/▼ buttons to set the position of each lines.
- Press SET MENU button several times to return to the previous mode.

4-1-1-3. RS485 & COAX MODE (PTZ / OSD Control)

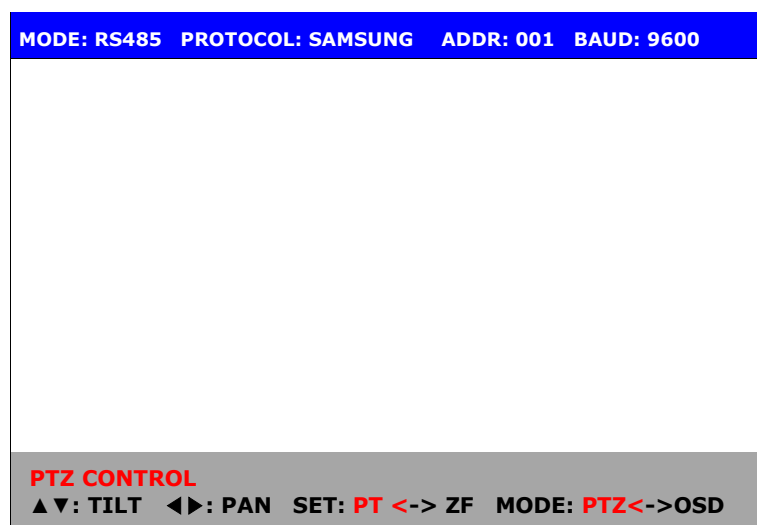


- MODE: In RS485(Tx.), COAX mode, you can control the PTZ & Camera OSD. In Rx. mode, it receives the PTZ control data(HEX value) and displays the data.
- PROTOCOL: Select the protocol of your PTZ camera
- ADDRESS: Select the address of your PTZ device
 - ※ In OSD mode, you can control Camera regardless of ADDRESS.
- BAUDRATE: Select com speed. (2400, 4800, 9600, 19200bps)
 - ※ In OSD mode, you can control Camera regardless of BAUDRATE.
- START: After setting the above menu, select START to control the PTZ.
- EXIT: Exit from the Menu mode.

※ **Built-in Protocol:** Other protocols are available upon request in case that the camera manufacturers provide us with their protocols in advance.

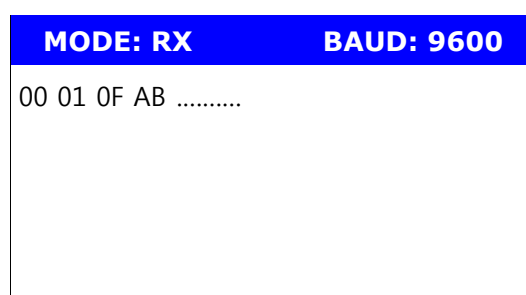
NO	COMPANY	PROTOCOL	PRODUCT MODEL
01	DONGYANG UNITECH (OSD)	D-MAX	DSC-300S/270S/230S Series (High Speed PTZ Dome Camera) DOH-240S Series (Speed PTZ Dome Camera) DPC-200 (Mini PTZ Dome camera) DRX-500, DRX-502A (CCTV PTZ receiver)
02	DONGYANG	DY-255RXC	DY-255RXC
03	FINE SYSTEM	Fine System	CRR-1600i/s
04	INTER-M	VRX-2201	VRX-2201
05	HONEYWELL	Honeywell	HRX-2000, ScanDome- II
06	LG MultiX(OSD)	LG MultiX	LPT-EP551PS/EI551PS/OS551HQ/OI551HQ/OI511HQ
07	LG LPT-A100L	LG LPT-A100	LPT-A100L
08	PANASONIC	PanasonicC	CS600, CS650, CS564, CS85X...
09	PANASONIC	PanasonicN	CS564CS854/A...
10	PELCO(OSD)	Pelco-D	...
11	PELCO(OSD)	Pelco-P	...
12	SAMSUNG Electronics(OSD)	Samsung	SCC-641/3/07,..., SCC-64x Series
13	SAMSUNG Techwin(OSD)	Techwin	SPD-xxxx Series
14	SUNGJIN	Sungjin	RECEIVER/MPU
15	SYSMANIA	Sysmania	ORX-1000
16	VICON	Vicon Stn	V1311RB,V1310RB, V1200R-LM, etc. receivers
17	VICON	Vicon Ext	Surveyor Dome Series
18	Ikegami	Ikegami35	PCS-35
19	Ikegami	Ikegami358	PCS-358
20	NEW BORN HIGHTECH	NEWBORN	
21	TOKINA	TOKINA DMP	
22	Ernitec(OSD)	ERNA	BDR-51x,BDR-55x,BDR-575,ICU
23	BOSCH	Bosch OSRD	Receiver/Drivers, G1, G2, G3, VEZ, and G4 Series AutoDomes
24	GSP Systems	CYBERSCAN1	
25	Hitron	Fastrax II	Fastrax II (HID-2404)
26	Yujin Systems	Yujin Sys.	EPT-5000S/6000S
27	Dynacolor DSCP	Dyna. DSCP	dynacolor DH801, DH701 and DH600
28	Ladon	Ladon	
29	Hanil STM	MCU-1200N	MCU-1200N, 1400N, 1500N
30	LILIN_MLP2	LILIN_MLP2	
31	LILIN_FastDome	LILIN FAST	
32	AMERICAN DYNAMICS	AD SPEED DOME	

4-1-1-3-1. RS485(TX) MODE



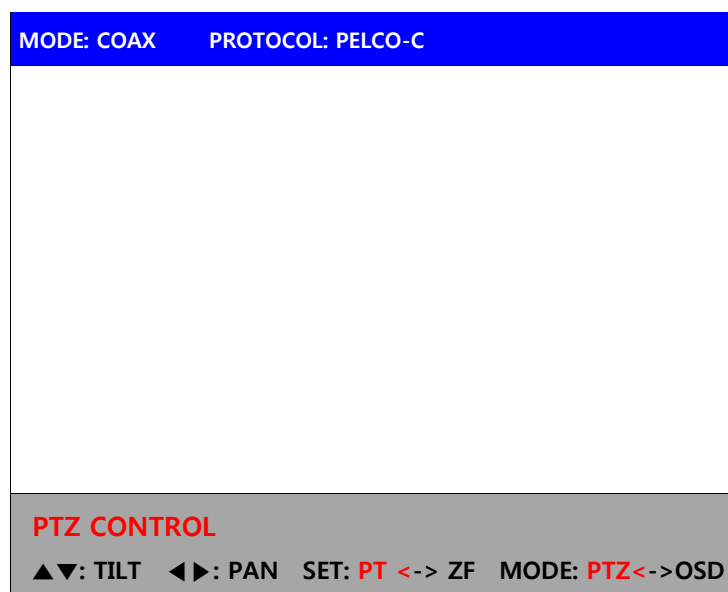
- It displays the current setting mode at the top of the screen.
- Press SET KEY shortly in MULTI WAY KEY selection to select PAN/TILT mode or ZOOM/FOCUS mode.
 - RED : P.T.Z MODE
 - BLUE : OSD MODEIn case of BOX/DOME Camera, Hold ENTER KEY to select OSD Menu.
- Press Mode KEY to select CAMERA OSD control mode
- Press MENU KEY to control CAMERA OSD and press ESC KEY to exit OSD MENU.
- Press EXIT KEY to go to the previous mode. (In CAMERA OSD mode, switch to PAN/TILT mode first in order to exit.)
- Press ◀/▶/▲/▼ buttons following the OSD guidance on the screen.

4-1-1-3-2. RX MODE



- It displays the current setting mode at the top of the screen.
- It displays the connection status of RS-485 line indicated by HEX value.
- The received data via RS-485 port can be displayed maximum in 8 lines in BYTE (8 byte).
- To go to the previous menu, press and hold the SET button.

4-1-1-3-3.COAX [UP THE COAX] Control



- It displays the current setting mode at the top of the screen.
- Press SET KEY shortly in MULTI WAY KEY selection to select PAN/TILT mode or ZOOM/FOCUS mode.
 - RED : P.T.Z MODE - BLUE : OSD MODE
- In case of BOX/DOME Camera, Hold ENTER KEY to select OSD Menu.
- Press Mode KEY to select CAMERA OSD control mode.
- Press MENU KEY to control CAMERA OSD and ESC KEY to exit OSD MENU.
- Press EXIT KEY to go to the previous mode. (In CAMERA OSD mode, switch to PAN/TILT mode first in order to exit.)
- Press ◀/▶/▲/▼ buttons following the OSD guidance on the screen.

※ Possible to control in the remote side of max. 800M by COAX communication.
(Standard of RG-6)

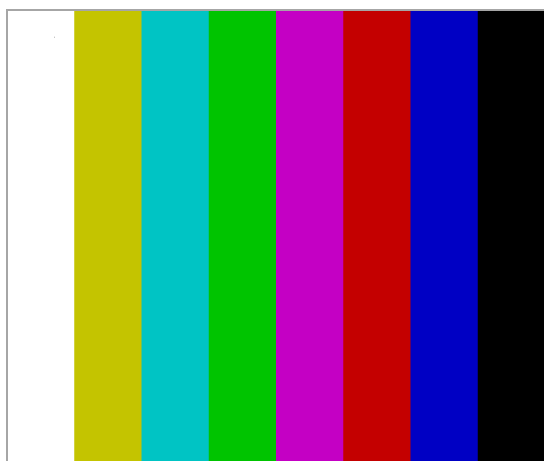
- List of controllable models

NO	COMPANY	Monitor OSD	CONTROLLABLE MODEL
01	Samsung Techwin	PELCO-C	All models to support COAX communication (WINNER 5)
02	PELCO	PELCO-C	All models to support COAX communication
03	DONGYANG UNITECH	PELCO-C	All models to support COAX communication (PIXIM)

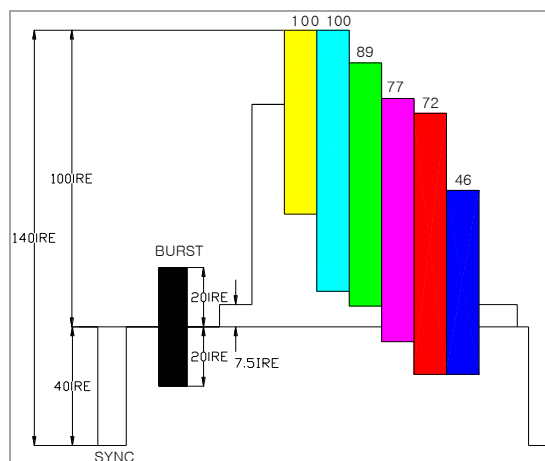
- ※ PELCO-C PROTOCOL in SC-LFC56LC is compatible with all the product models above. Also, SC-LFC56LC can control COAX in a remote side through the automatic NTSC/PAL recognition without any set-up.
- ※ SC-LFC56LC does not support Coax Remote Control in Samsung A One Module.

4-1-1-4. PATTERN OUT

- With built-in video pattern generator, it is easy to check the wiring status, the monitor and the DVR. Select PATTERN OUT ON by pressing the ▼ and/or ▲ buttons, when you want to display the full color bar pattern generator. When the Pattern Out mode is off, the video input by loop through is displayed.



(COLOR PATTERN GENERATOR)



(VIDEO OUT LEVEL)

4-1-1-5. LEVEL ON / OFF

- It displays CVBS video signal level with SYNC (Brightness / A.Level) & BURST (Color / F.Level). You can adjust the video signal level easily while monitoring the displayed video. We recommend you to turn off this function after you have completed the adjustment of signal level in order to save the battery power which consumes about 1.2W when it is operated.

* OFF: In SELECT MENU mode, select Level Meter OFF when you want to remove the video level indicator.

4-1-1-6. EXIT

- Select Exit when you want to exit from the MAIN MENU.

5. Specifications

MODEL				SC-LFC56L	SC-LFC56LD	SC-LFC56LC
LCD	DISPLAY RESOLUTION			640 X (RGB) X 480		
	SIZE			5.6"		
	PIXEL PITCH			0.0588(W) X 0.1764(H)		
	BRIGHTNESS(cd)			Min.:300, Nor.:350		
	ANGLE OF VIEW	TOP		50°		
		BOTTOM		70°		
		LEFT		70°		
		RIGHT		70°		
RESPONSE (ms)			15			
VIDEO	INPUT	CVBS		NTSC/PAL 1.0Vp_p,		COAX COM. SUPPORT
		XVGA		1024x768, 60Hz		
	OUTPUT	CVBS	PATTERN ON	FULL COLOR BAR		
			PATTERN OFF	LOOP THROUGH		
			VIDEO OUT	NTSC/PAL 1.0Vp_p(75Ω)		
Indication range for CVBS video signal level		A LEVEL		10 ~ 118%		
		F LEVEL		20 ~ 120%		
		ERROR RATE		±2%		
CONNECT PORT		INPUT:		BNC-F		
		OUTPUT:		BNC-F		
		RS-485		Pan/Tilt/Zoom/Focus Control OSD Control		
POWER		INPUT		DC 12.6V(exclusive Adapter for SC-LFC56LC)		
		OUTPUT		≡ DC 12V		
COLOR				Gray		
BATTERY				Li-Polymer: 11.1V, 2200mA (protection circuit built-in)		
POWER CONSUMPTION	IN CVBS			4.5W		
	IN CVBS + WITH Level Meter ON			5W		
TEMPERATURE				0℃ ~ +50℃		
HUMIDITY				0% ~ 80%		
WEIGHT				1Kg		
DIMENSION(WITHOUT THE BAG)				192(W) X 131(H) X 50(D)mm		
DVR				X	O	X

6. Warrantee Certificate

Product Name		
Model No.		
Date of Purchase		
Place of Purchase		
Customer	Name	
	Contact info.	
Distributor	Name	
	Contact info.	
Warranty Period	1 Year from the date of purchase	

This product has passed thorough quality control and test, and if this gets broken during normal use, we provide 12 months warranty service.

- Check this warranty prior to use the unit.
- Please contact the distributor after checking out any defect in the products.
- The standard for repairing, replacement or reimbursement follows Customer.
- Warranty content any defect under normal use within the warranty service period we give you free repair service according to the warranty certificate.
- We charge you with the fee of parts and service despite free warranty service period.
 1. Any breakage made without care.
 2. Breakage or trouble made by natural disaster.
 3. Breakage or trouble made by breaking the product guide or manual.
 4. Breakage or trouble made by wrong power voltage or frequency.
 5. When you want to reassemble for full system or replace parts within warranty service period.
 6. When unauthorized person modified or made damage on the product trying to repair it, we may charge you with the fee.
- Please note that we don't support the breakage after warranty service period. If the customer wants to get it repaired, we charge them with the fee.
- The specification is subject to change without prior notice for quality improvement.

MEMO

MEMO

MEMO

 **SeeEyes Co., Ltd.** is new corporate name of Samsung CCTV Service Co., Ltd.

SeeEyes[®]

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